

REMARKS

In response to the Office Action mailed on February 23, 2005, Applicants respectfully request reconsideration. To further the prosecution of this Application, Applicants submit the following remarks discussing patentability of rejected pending claims 1-41. Applicants respectfully request reconsideration and allowance of pending claims 1-41.

Rejection of Pending Claims 1-41 under 35 U.S.C. §102(e)

The Examiner has rejected claim 1 under 35 U.S.C. §102(e) as being anticipated by Tsutsumitake (U.S. Patent 6,480,883). The Office Action likens elements in Tsutsumitake to those in claim 1 to reject the claimed invention. Applicants respectfully traverse the rejection and provide an analysis of how the claim differs over the cited art.

In general, Applicants agree that Tsutsumitake discloses a client-server application in which a client requests a web page from a server and the server serves the requested web page to the client. As shown in Figure 6 of Tsutsumitake, the client requests to be notified of an occurrence of certain events. When detected, the server in Tsutsumitake notifies the client of the occurrence of the event. However, Applicants of the present application are not claiming this as their invention. For example, claim 1 recites:

“generating an update package including content indicating the detected state changes; and

sending the update package to the client, wherein the presentation program in the client renders the content in the update package in at least one region.”

Thus, server in the present invention generates the update package to include content that is sent to the client. The client in turn renders (e.g., displays) the content in the update package in a region of the displayed page at the client.

The passages cited by the Examiner to reject the claimed invention include Tsutsumitake at column 10, lines 7-15 which reads:

"The event receiving unit 114 receives the event sent from the server 10 on the basis of the request to the server 10 from the event request unit 113. The received event is sent to the input/output unit 110, where necessary. For example, if the received event is an event indicating the update of the page in the server 10, the client 11 issues a page request to the server 10 and enables the updated page to be displayed on the display screen once again (i.e. the updated content being reflected on the display)." (Emphasis added)

Applicants submit that the claimed invention operates in a different manner as cited by the Examiner. For example, as emphasized via underlining above, Tsutsumitake discloses that the server 10 notifies client 11 of the occurrence of an event. However, note that the client in Tsutsumitake issues a page request to retrieve the updates from the server 10. See also the following paragraph at column 10, lines 16-19 describing that the server 10 sends an updated page to client 11 as a "normal" HTML file. This indicates an updated web page with updated content and the old web page is discarded. The Examiner also cites column 8, lines 57-65. This passage only indicates different examples of events that can occur.

Applicants would like to point out that the claimed invention does not require the client to request the page again. As stated in the office action, the Examiner interprets the "updated page" of Tsutsumitake to be the "update

package” in the claimed invention. Applicants respectfully submit that these concepts are not equivalent. This is evidence by the fact that client in Tsutsumitake, in response to the event notification, sends a request for the updated webpage. That is, the cited passage provides no indication that the event notification itself includes updated content to be displayed on a display screen, especially one in which information is already displayed on a display screen. According, to the claimed invention, the “update package” includes content that is “rendered” (e.g., displayed) in the page already displayed by the client.

Also, note that Tsutsumitake at column 10, lines 16-19 describes that the server 10 sends an updated page to client 11 as a “normal” HTML file. The claimed invention recites that the “content” indicates state changes detected by the server generating the update package. Applicants submit that normal HTML files as recited by Tsutsumitake do not include “content indicating the detected state changes” as in the claimed invention. In other words, a “normal” HTML file does not include content that itself indicates where specific changes have occurred in already displayed webpage. Instead, a normal HTML file only includes information defining a structure and layout of a webpage, not content specifically indicating where a server has detected an occurrence of state changes associated with a page as in the claimed invention.

Applicants respectfully submit that verbiage of the claims should be given their broadest reasonable meaning in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definition or otherwise that may be afforded by the written description contained in the Applicant’s specification (MPEP 2111). Given this claim interpretation standard as a guideline, Applicants respectfully submit that the claims are directed to a technique of updating portions of a displayed page via update packages generated in response to detecting state

changes associated with content to be displayed at the client already displaying a page.

For the reasons stated above, Applicants submit that claim 1 is patentably distinct and advantageous over the cited prior art, and the rejection of claim 1 under 35 U.S.C. §102(e) should be withdrawn. Accordingly, allowance of claim 1 is respectfully requested.

Applicants submit that the other pending independent claims 16, 23, and 30 include similar limitations and therefore should be allowable as well for similar reasons. Since all of the dependent claims (e.g., claims 2-15, claims 17-22, claims 24-29, and claims 31-41) depend from respective independent claims 1, 16, 23, and 30, the dependent claims should therefore also be allowable for at least the same reasons as the independent claims.

Applicants would like to point out additional claim limitations in the dependent claims providing further differences over the cited prior art.

For example, the Examiner cites column 10, lines 7-15 to reject claim 4 of the subject application. The cited language in Tsutsumitake is as follows:

“The event receiving unit 114 receives the event sent from the server 10 on the basis of the request to the server 10 from the event request unit 113. The received event is sent to the input/output unit 110, where necessary. For example, if the received event is an event indicating the update of the page in the server 10, the client 11 issues a page request to the server 10 and enables the updated page to be displayed on the display screen once again (i.e. the updated content being reflected on the display).”

The Examiner indicates in the office action that “an update queue is considered inherent since TCP/IP queues the update in packets prior to transmission over the network.” Applicants submit that queuing of packets as in TCP/IP is not the same as queuing information associated with dynamic content and detected state changes associated with a page as in the claimed invention and, therefore, the rejection under 102(e) is improper. That is, existence of a queue for storing network data packets is initiated based on initiation of transmitting a data packet over a network. The queue according to the claimed invention is maintained for a region of dynamic content in the page displayed by the client.

Thus, the purpose of the queues are entirely different and the cited reference does not anticipate this element of the claimed invention as stated in the office action. For example, queuing of data packets enables transmission of a message over a network. The queue in the claimed invention enables a server to store “state change information” associated with “dynamic content” to be displayed in a corresponding “region” of a page displayed by a client. Thus, techniques of the invention involve queuing changes in dynamic content associated with a region of a displayed page and eventually forwarding the changes to the client via an update package. This is not taught by the Tsutsumitake reference.

Additionally, the Examiner asserts Tsutsumitake page 12 of the office action that Tsutsumitake inherently teaches that a queue would be used to store multiple events that happen to occur simultaneously. Applicants submit that the queue in the claimed invention is used for a different purpose than storing detected events and thereafter notifying clients of the detected events as in Tsutsumitake. For example, the invention as in claim 4 recites storing “state change information” associated with “dynamic content” to be displayed in a corresponding “region” of a page displayed by a client. That is, as recited in

claim 1, the cited passages do not involve "sending the update package" as derived from contents of the queue "to the client, wherein the presentation program in the client renders the content in the update package in at least one region." The events detected by a server in Tsutsumitake do not automatically result in changing of regions in a displayed page for a user, whereas the occurrence of queued information based on state changes in the claimed invention do result in a client "rendering the content in the update package in at least one region" of a previously displayed page. Thus, the claimed invention does not involve merely receiving an event, packetizing the event, and queuing the packets prior to transmission as stated by the Examiner on page 12 of the office action.

Lastly, the Examiner cites column 17, lines 1-14 and column 17, line 55 to column 18, line 7 and asserts that Tsutsumitake specifically discloses queuing of information on state changes. Applicants agree that Tsutsumitake does recite a technique of queuing. However, the cited passages do not recite queuing as in the claimed invention and the rejection under 102(e) is therefore improper. For example, the cited language in Tsutsumitake is as follows:

"The system in FIG. 13 differs from that in FIG. 1 in that the server 10 in FIG. 1 is replaced with a server 30 to which an exclusive page management unit 300 is added. The exclusive page management unit 300 registers sets of page identifiers (e.g. URL) for identifying pages which cannot be displayed at the same time on a plurality of clients 11, that is, exclusive pages. Where there is a client 11 waiting for display of an exclusive page, the identifier of the exclusive page as well as a queue of a client identifier of the client 11 in the waiting state are added. The exclusive page (the identifier thereof) is registered in the exclusive page management unit 300 by setting, in the page request to be sent to the

-19-

server 30 from client 11, information declaring that the request page is to be used exclusively.”

“On the other hand, if the page requested by the client 11 (A) is the exclusive page (page P), the exclusive page management unit 300 asks the connection management unit 105 whether the connection to the event request described in the page (P) is registered (steps F4, F5). It should be noted that if the connection is registered, another client 11 (client B) has already displayed the same page (P). The exclusive page management unit 300 may register, an identifier of the client displaying the exclusive page in combination with the page identifier of this page.

Where the connection to the event request-described in the exclusive page (P) is registered in the connection management unit 105, that is, where the exclusive page (P) is displayed on the other client (B), the exclusive page management unit 300 registers the identifier of the client 11 (A) at the page request originating point in the queue combined with the identifier of the exclusive page (P). At this time, if there is no client identifier already registered in the queue, the identifier of the client 11 (A) is registered at the first position of the queue.”

Applicants respectfully submit that the recited queue in this passage is not used for queuing the occurrence of events as in the previously discussed embodiment cited by the Examiner. Instead, the cited passage discusses that certain pages are to be served and displayed only to one client at a time, rather than to multiple clients simultaneously. The purpose of the queue is to keep track of clients waiting to receive a given page, but for which the requesting clients have to wait to receive the page because it is being used by another client. Thus, there is no support in Tsutsumitake to queue dynamic information to be displayed in a region of a previously downloaded webpage.

The Examiner cites column 8, line 57 to column 9, line 5 to reject claim 5 of the subject application. The cited language in Tsutsumitake is as follows:

“An event generating unit 107 generates events asynchronously or non-periodically. The kind of event to be generated is freely chosen. The examples are an event indicating the fact that a current flowing a specific control device in the plant system 42 has exceeded a predetermined value, an event indicating the fact that the number of clients 11 accessing the server 10 has reached a predetermined value, and an event indicating that a predesignated time has arrived.

An event generated by the event generating unit 107 is directly sent to the event transmission unit 106. Alternatively, an event generation monitoring unit 108 may monitor a factor of generation of an event and, as a result, may generate an event of a different kind which is not generated by the event generating unit 107 and send it to the event transmission unit 106.”

Applicants respectfully submit that this passage provides no literal support that Tsutsumitake includes a queue as previously discussed above for claim 4 of the subject application. Additionally, as noted above, the Examiner likens the queue of the claimed invention to a TCP/IP queue. This same issue has been discussed above and the Applicants assert that the queuing in Tsutsumitake is different than that of the claimed invention and that the rejection under 102(e) should be withdrawn.

For similar reasons regarding the claimed technique of queuing as discussed above, additional claims 4, 5, and 8-14 are not anticipated based on teachings of the Tsutsumitake reference.

The Examiner has rejected claims 9-15 based on Tsutsumitake in view of Smith. For the reasons discussed above, Applicants submit that Tsutsumitake does not teach queuing as in the claimed invention. Further, Applicants have reviewed the Smith reference, which does discuss use of queues to transmit data over a network. However, Smith does not recite the same elements of queuing as in the claimed invention.

For example, claim 14 recites “wherein the queues associated with one client session object include state change information for regions in the page sent to the client.” In other words, for one client, the server of the present invention maintains multiple queues for storing state change information for updating regions in the page previously sent to the client. Accordingly, the server can send the change in state information stored in one queue to update a corresponding region in the page at the client, the server can send the change in state information stored in another queue to update another corresponding region in the page at the client, and so on.

The Examiner admits that Tsutsumitake does not teach multiple queues and thus cites Smith. Applicants submit that Smith (at paragraphs 14-15, and 103) also does not teach or suggest this claim limitation of using multiple queues to store data sent to a single client, especially for a case in which each of the queues stores a change of state information associated with corresponding regions of a page displayed by a client. There is no indication whatsoever in Smith that each queue in the plurality of queues stores information associated with the same page displayed by a client. Similarly, Tsutsumitake does not teach this technique. Accordingly, even if combined, the references do not teach every element recited by claim 14.

Applicants further submit that claim 15 recites “wherein the refresh request indicates one region in the page, and wherein determining the queue for the

-22-

determined client session object further comprises: determining the queue for the client session object that includes state change information for the region indicated in the refresh request.”

Applicants respectfully submit that neither of the cited reference teaches these limitations in claim 15 for a number of reasons. First, neither reference discloses that a request by the client pertains to a request to update a specific region of an already displayed page. Second, the language in the Smith reference at paragraph 15 used to reject the claimed invention discloses that “each client has an associated delivery manager which maintains a queue of data to be sent to the client.” Thus, Smith does not recite maintaining multiple queues for a given client as in the claimed invention. Also, neither Smith nor Tsutsumitake recite a technique of determining a queue of multiple queues that includes state change information for the region identified by refresh request issued by the client. Accordingly, Applicants submit that claim 15 is allowable over the cited art.


CONCLUSION

In view of the foregoing remarks, Applicants submit that the pending claims as well as newly added claims are in condition for allowance. A Notice to this affect is respectfully requested. If the Examiner believes, after reviewing this Response, that the pending claims are not in condition for allowance, the Examiner is respectfully requested to call the Representative.

-23-

Applicants hereby petition for any extension of time which is required to maintain the pendency of this case. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50-0901.

Respectfully submitted,



Paul P. Kriz, Esq.
Attorney for Applicants
Registration No.: 45,752
CHAPIN & HUANG, L.L.C.
Westborough Office Park
1700 West Park Drive
Westborough, MA 01581
Telephone: (508) 366-9600
Facsimile: (508) 616-9805
Customer No.: 022468

Attorney Docket No.: SUN04-20(P5753)

Dated: April 21, 2005